

**\*78188\***

January-02-12 10:09:24 AM

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Start Date:** 02/01/2012      **Start Qty:** 8.00

**\*8\***

**Cust Item ID:**

**Required Date:** 31/01/2012      **Req'd Qty:** 8.00

**\*8\***

**Customer:**

**Reference:**

Approvals: Process Plan: M.L.J Date: 12/01/02 Tooling:

Date:

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_

Date:

Stop \*NR2\*

<b>Draw Nbr</b>	<b>Revision Nbr</b>
D3443	Rev C

0.00

\*100\*

## Large Fab

## Large Fab

## Memo

0.00

## Large Fab

Weld assembly as per dwg D3443

110

QC9- Inspect visual per QSI004- Fusion Welds

0.00

**\*110\***

QC

## Memo

0.00

## Quality Control

120

QC5- Inspect part completeness to step on W/O

0.00

**\*120\***

QC

## Memo

0.00

## Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 78188

**\*78188\***

Page 2

January-02-12 10:09:24 AM

Item ID: D3443-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Strut Weldment Assembly  
 Start Date: 02/01/2012 Start Qty: 8.00 **\*8\*** Cust Item ID:  
 Required Date: 31/01/2012 Req'd Qty: 8.00 **\*8\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 <b>*130*</b> Powdercoat Powder Coating  W11A480	White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel  Memo 1-Mask holes as per dwg D3443 START TIME: 3:00 OVEN TEMPERATURE: 400 F FINISH TIME: 3:30	0.00 0.00							4 X 10 M 12/02/09
140 <b>*140*</b> QC Quality Control	QC3- Inspect Part Finish  Memo	0.00 0.00							4 BL 12.2.9
150 <b>*150*</b> Small Fab Small Fab	Small Fab  Memo Assemble bearing and ball plungers as per dwg D3443 using DT9518  Ensure bearing rotates smoothly	0.00 0.00							EP 12/02/09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

**Work Order ID 78188****\*78188\***

Page 3

January-02-12 10:09:24 AM

Item ID: D3443-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Strut Weldment Assembly  
Start Date: 02/01/2012 Start Qty: 8.00 **\*8\*** Cust Item ID:  
Required Date: 31/01/2012 Req'd Qty: 8.00 **\*8\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC5- Inspect part completeness to step on W/O	0.00							
<b>*160*</b>									
QC	Memo	0.00							
Quality Control									
170	Identify as per dwg & Stock Location: <u>199</u>	0.00							
<b>*170*</b>									
Packaging	Memo	0.00							
Packaging									
180	QC21- Final Inspection - Work Order Release	0.00							
<b>*180*</b>									
QC	Memo	0.00							
Quality Control									

SB 12/02/10

12/2/13

12/2/13

12-02-13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

January-02-12 10:09:32 AM

Page 1

Work Order ID: 78188

**\*78188\***

Parent Item: D3443-041

**\*D3443-041\***

Parent Item Name: Strut Weldment Assembly

Start Date: 02/01/2012

Required Date: 31/01/2012

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP REV. A 05.11.17 NEW ISSUE EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3443-1 Manufactured No

100 Each 4.0000 1 8

**\*D3443-1\***

\*\*

EL 12-2-7

Lug

78200 x 4.

Location

Loc Qty

Loc Code

WA022

4

73613

4

D3443-5 Manufactured No

100 Each 12.0000 1 8

**\*D3443-5\***

\*\*

EL 12-2-7

Tubing

78203 x 4

Location

Loc Qty

Loc Code

WA022

12

73099

2

73625

10

D3453-1 Manufactured No

100 Each 4.0000 1 8

**\*D3453-1\***

\*\*

EL 12-2-7.

Clevis

78205 x 4.

Location

Loc Qty

Loc Code

WA022

4

73470

4

D3965-4 Manufactured No

100 Each 8.0000 1 8

**\*D3965-4\***

\*\*

EP 12/02/10 (4)

Bearing, Spherical

Location

Loc Qty

Loc Code

ST100

8

71181

2

73614

6

78208  
(4K)

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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January-02-12 10:09:32 AM

Work Order ID: 78188

**\*78188\***

Parent Item: D3443-041

**\*D3443-041\***

Parent Item Name: Strut Weldment Assembly

Start Date: 02/01/2012

Required Date: 31/01/2012

Start Qty: 8.00

Required Qty: 8.00

D3966-4-750

Manufactured No

100

Each

99.0000

2

16

**\*D3966-4-750\***

Pin, Dowel

\*\*

*R 12.2-7*

Location

Loc Qty

Loc Code

ST100

99

73566

99

8

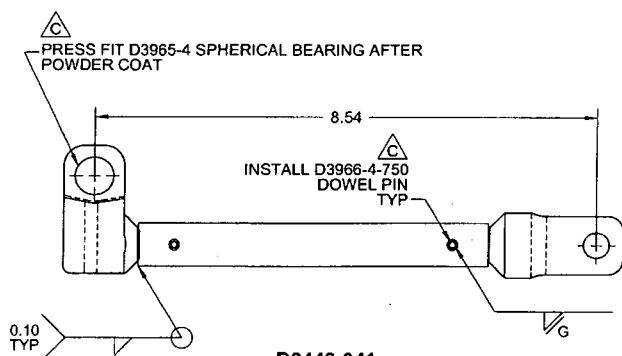
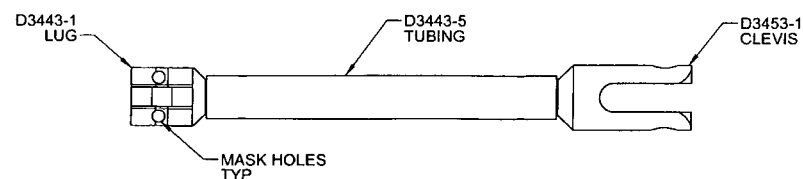
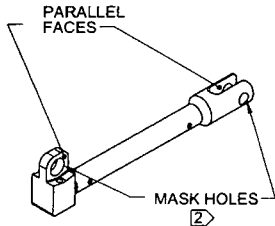
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D3443-041**

- NOTES:**
- 1) MATERIAL: N/A
  - 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3  
NO POWDER COAT IN HOLES
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY WITH DART P/N USING FINE POINT PERMANENT INK MARKER
  - 7) WEIGHT: 1.33 lbs
  - 8) WELD PER DART QSI 004

ITEM	QTY	P/N	DESCRIPTION
1	X	D3443-041	STRUT WELDMENT ASSEMBLY
2	1	D3443-1	LUG
3	1	D3443-5	TUBING
4	1	D3453-1	CLEVIS
5	1	D3965-4	BEARING, SPHERICAL
6	2	D3966-4-750	PIN, DOWEL

RETURN TO  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO 38188 M.C.J  
12/01/02

**RELEASED**  
09/06/25 M

C	DRAWING UPDATED TO CURRENT STANDARDS. REVISED NOTE #2 (ZN A8-1, A8-2), 0.820 WAS 0.720 & 1.43 WAS 1.53 (ZN C2-3); 0.551 WAS 0.451 (ZN C1-3); R0.219 WAS R0.050 (ZN C4-3); D3965-4 WAS SPANNAUR PIN (ZN C6-1, B5-2); D3966-4-750 WAS McMASTER-CARR P/N (ZN B5-1); REF PAR 09-018	RF	09.06.25
B	ADDED -9 PIN; REMOVED BALL PLUNGER; REVISE TOLERANCE; & Ø0.125 WAS #30	RF	05.12.05
A	NEW ISSUE	RF	05.09.02
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA  DRAWING NO. <b>D3443</b> REV. C SHEET 1 OF 4  TITLE <b>STRUT WELDMENT ASSEMBLY</b> SCALE NTS  COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR DISCLOSED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	RF		
CHECKED	RF		
MFG. APPR.	RF		
APPROVED	RF		
DE APPR.	RF		
DATE	09.06.25		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

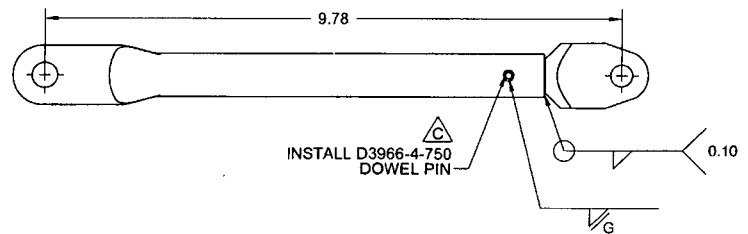
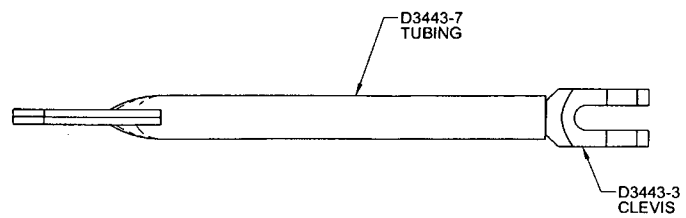
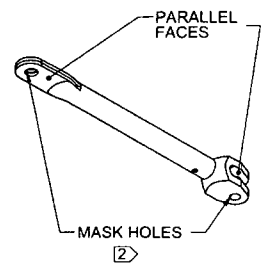
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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**NOTE:** Date & initial all entries

78188

ITEM	QTY -043	P/N	DESCRIPTION
1	X	D3443-043	STRUT WELDMENT ASSEMBLY
2	1	D3443-3	CLEVIS
3	1	D3443-7	TUBING
4	1	D3966-4-750	PIN



**D3443-043**

**RELEASED**  
09/06/25/14

- NOTES:**
- 1) MATERIAL: N/A
  - 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3  
NO POWDER COAT IN HOLES
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY WITH DART P/N USING FINE POINT PERMANENT INK MARKER
  - 7) WEIGHT: 0.97 lbs
  - 8) WELD PER DART QSI 004

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	UP	DRAWING NO.	REV. C
MFG. APPR.		<b>D3443</b>	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		<b>STRUT WELDMENT ASSEMBLY</b>	<b>NTS</b>
DATE	09.06.25	COPYRIGHT © 2005 BY DART AEROSPACE LTD	
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

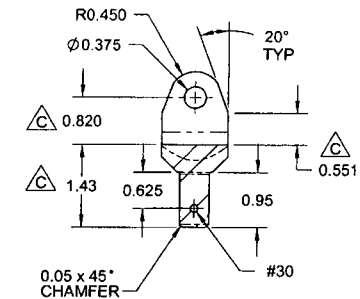
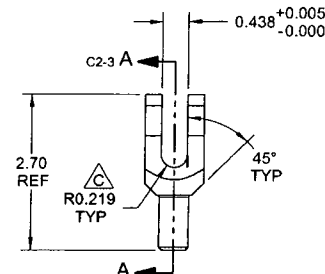
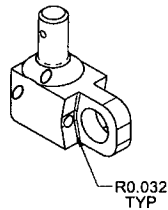
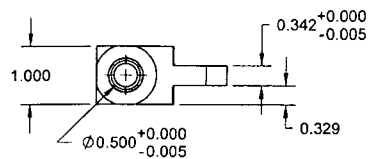
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

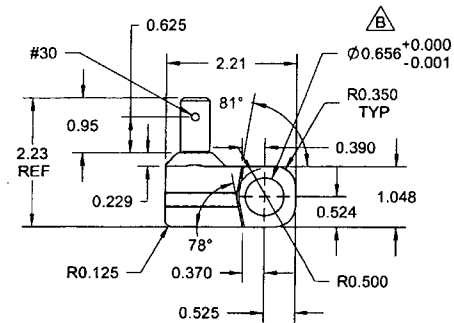
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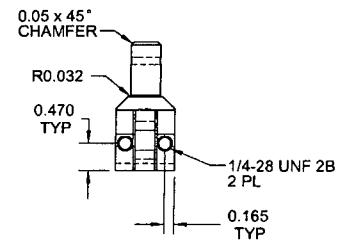
78100



SECTION A-A C4-3



D3443-1 LUG






D3443-3 CLEVIS

NOTES:

- 1) MATERIAL: D3443-1 = 17-4 SS PER AMS 5604/5643 (REF DART SPEC M17-4B)  
D3443-3 = AISI 304 SS ROUND BAR (REF. DART SPEC M304R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D3443-1 = 0.50 lbs  
D3443-3 = 0.35 lbs

RELEASED  
09/10/25

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3443	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		STRUT WELDMENT ASSEMBLY	NTS
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

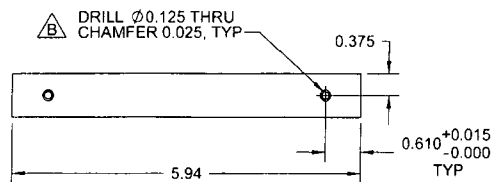
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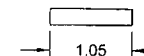
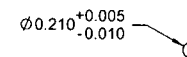
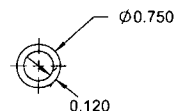
**NOTE:** Date & initial all entries



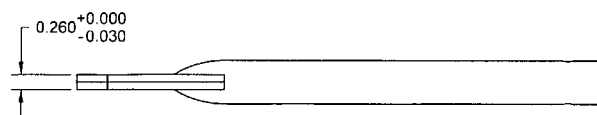
78188



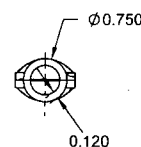
**D3443-5 TUBING**



**D3443-9 PIN**

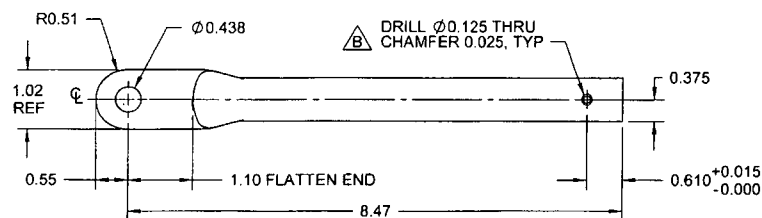


**D3443-7 TUBING**



**D3443-9 NOTES:**



- 1) MATERIAL: DELRIN II 150R OR ACETRON GP ACETAL (REF. DART SPEC M-DELRIN-R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A



**D3443-5/-7 NOTES:**

- 1) MATERIAL: AISI 316/304 SS SEAMLESS TUBING (REF. DART SPEC M304TR0.750W.120)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.025 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D3443-5 = 0.41 lbs  
D3443-7 = 0.62 lbs

RELEASED  
01/08/25 MJD

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.		D3443	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		<b>STRUT WELDMENT ASSEMBLY</b> NTS	
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries